CHAPTER 4 CIRCULATION PLAN

4.1 VEHICULAR CIRCULATION PLAN

Several existing off-site roadways serve the Shea/Baker Ranch Area Plan site. The Foothill Transportation Corridor, located to the east, provides regional access to the site. Local roadways adjacent to and providing access to the site include Commercentre Drive to the west, Bake Parkway and Dimension Drive to the south, Rancho Parkway to the east, and Towne Centre Drive to the northeast. Alton Parkway bisects the site in a northeast to southwest direction.

A major component of the circulation system for Shea/Baker Ranch is the alignment of Alton Parkway through the project site. Alton Parkway connects from Towne Centre Drive to the limits of the City's jurisdiction at Commercentre Drive, where it joins the segment of Alton Parkway in the City of Irvine. Within the project boundary Alton Parkway is a four-lane road, with a 20' wide raised median, left turn pockets and 8' paved shoulders on both sides.

As part of the Shea/Baker Ranch project Alton Parkway will be widened to it's ultimate right-of-way width of 124', which includes six travel lanes, 8' on-street bicycle lanes, 8' landscaped parkways, and 8' public sidewalks on each side. As part of Shea/Baker Ranch, Rancho Parkway will be extended through the community, Dimension Drive will be extended across Bake Parkway into the community, "A", "B" and "C" streets will be built, forming a loop encircling Planning Areas 1 E, H and L. These new roads create two connection points to Alton Parkway.

4.1.1 Street Sections

The on-site circulation for Shea/Baker Ranch includes a hierarchy of streets designed to fulfill different functions within the community. Arterial streets, collector streets, and neighborhood streets carry different anticipated volumes of traffic, and are designed with unique features to accommodate the anticipate traffic volumes. Additionally, to facilitate movement within and through the community, multiple connections are provided to avoid congestion at any one point. Traffic calming devices are allowed within the circulation plan to promote reduced vehicular speeds at certain locations within the community. The circulation plan for Shea/Baker Ranch is illustrated on Exhibit 4.1. Alton and Bake parkways provide the principal east/west connections and Rancho Parkway and Dimension Drive's connection to "A" and "B" streets provide the principal north/south routes.

Alternative street design standards were established by the adoption of the community's zoning in 2010. These alternative standards, referred to as "Optional Standards," allow for the following:

- Certain sidewalks to be located outside the public right-of-way with an easement granted to the City of Lake Forest for public access and maintenance purposes,
- Single loaded streets with parking on one side only,
- Alleys to serve as garage access,
- Traffic calming measures including tapers and roundabouts.

Exhibits 4.2 through 4.4 illustrate street sections for the roads within Shea/Baker Ranch. The community's roadways are heavily landscaped to provide enhanced pedestrian experiences and to create aesthetically pleasing edge conditions. On most streets a landscaped parkway separating the sidewalk from the curb is included. The exception to this occurs along existing Bake Parkway. Landscaped roadway medians are provided along Rancho and Bake parkways, a portion of Dimension Drive, and portions of the internal loop road (formed by "A", "B", and "C" streets). Parkway and median landscaping will be privately maintained.

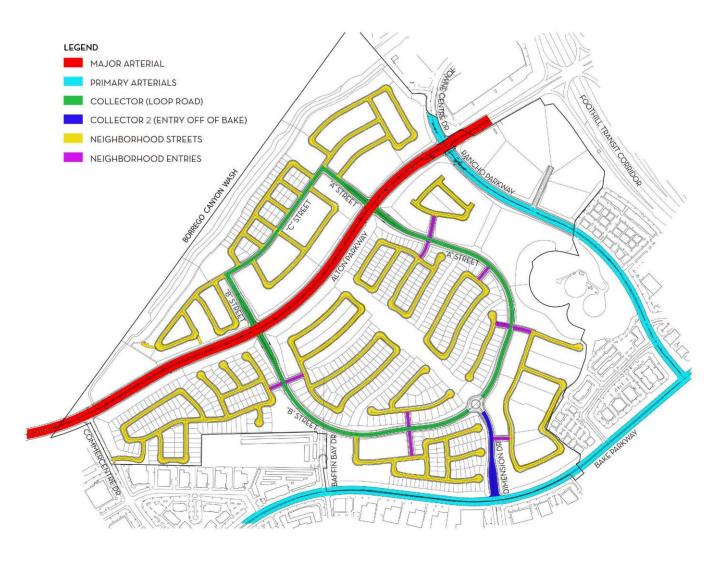




Exhibit 4.1 - Circulation Plan

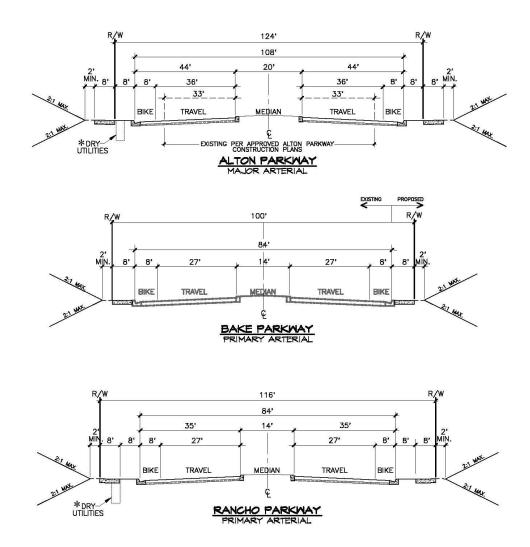
No parking is allowed on streets classified as arterial streets within the community. On-street parking is only allowed on certain collector roadway segments, and all local collector and neighborhood streets, as specified below.

Alton Parkway is classified as a major arterial, designed with six travel lanes, separated by a twenty-foot wide landscaped median. Public right-of-way extends eight feet behind the curb and includes the parkway. The sidewalk is located outside the right-of-way, and an access and maintenance easement will be granted to the City over the sidewalks.

Bake and Rancho parkways are classified as primary arterials. As illustrated on Exhibit 4.2, these roadways include four travel lanes separated by a fourteen-foot median. The right-of-way extends 16' behind the curb face along Rancho Parkway. The public right-of-way extends eight feet behind the curb face along Bake Parkway. On the Shea/Baker Ranch Bake Parkway frontage an eight-foot wide sidewalk will be constructed adjacent to the existing curb.

"A", "B", and "C" streets are classified as collector roads. "A" and "B" streets include two travel lanes, Class II bike lanes in both directions, and a curb separated sidewalk or 8' wide-community sidewalk. The bike lane is shared with right turn lanes near the intersections with Alton Parkway. No parking is allowed on "A" or "B" streets south of Alton Parkway except where the roads are widened specifically to accommodate parallel parking adjacent to the park in Planning Area F. "C" Street includes two travel lanes and curb separated sidewalks, with on street parking along its length. These streets are illustrated on Exhibit 4.3.

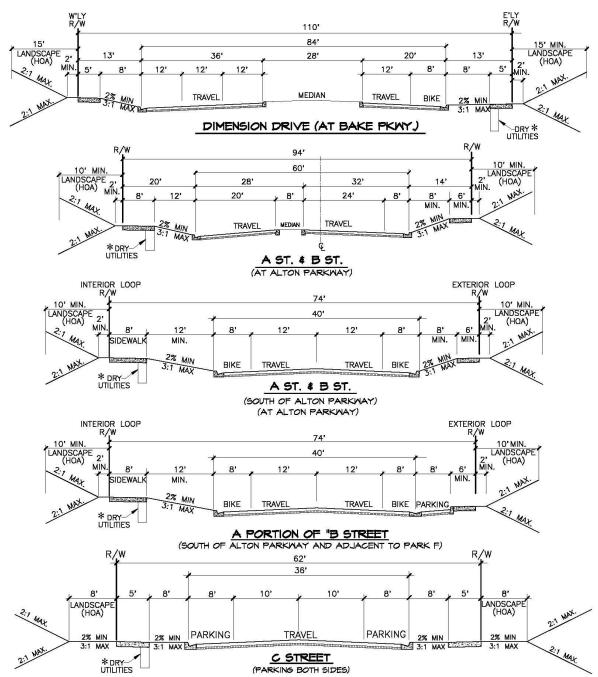
Neighborhood streets are those streets located within individual planning areas and neighborhoods, are illustrated on Exhibit 4.4. These streets include two undivided travel lanes and parking is allowed on some, but not all.



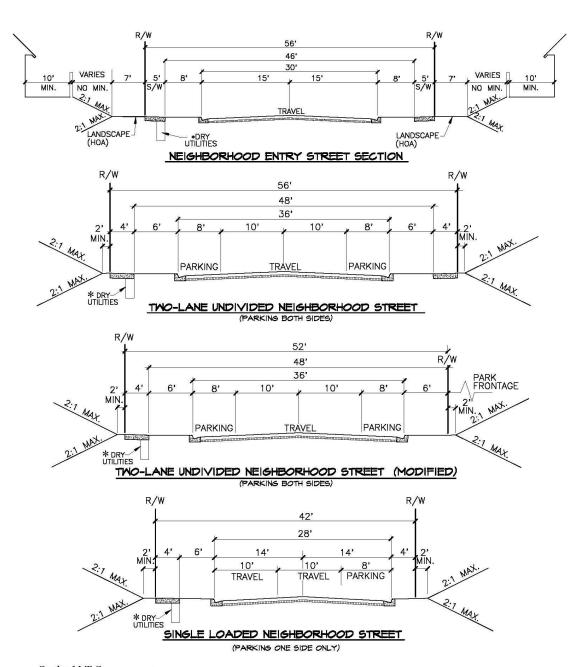
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Exhibit 4.2 - Arterial Street Sections

^{*} DRY UTILITY LOCATION SHOWN IS A TYPICAL LOCATION, ACTUAL PLACEMENT OF DRY UTILITIES MAY BE ON ONE OR BOTH SIDES OF STREET AS DETERMINED BY UTILITY PROVIDERS.



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Private alleys may serve as the garage access for some homes in Shea/Baker Ranch. These alleys will be owned and maintained by a homeowners association. The private alleys are developed with a twenty-four-foot wide travel way. A minimum setback of three feet to a building or fence line is required from the travel way to provide a minimum of thirty feet between garages and any obstruction across the alley. A section of an alley is illustrated on Exhibit 4.5.

4.1.2 Parking Standards

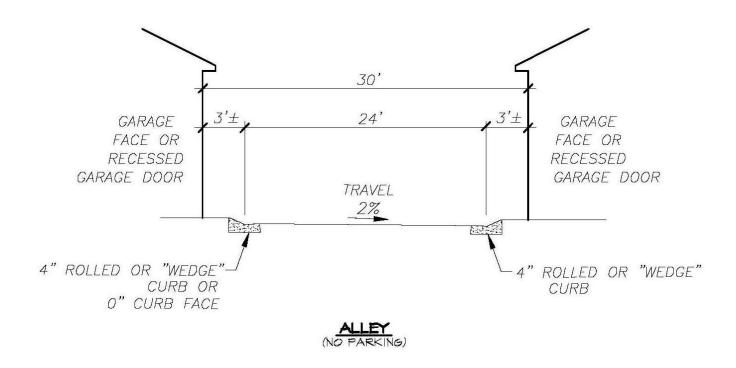
The City's Zoning Code, Chapter 9.168, and the Baker Ranch P.C. Text regulate the provision of parking within Shea/Baker Ranch. The following standards are intended to clarify parking standards for residential housing types proposed throughout Shea/Baker Ranch, are in addition to parking provisions within the City's Zoning Code and P.C. Text, and will apply to the Shea/Baker Ranch pursuant to approval of a Site Plan, as permitted by Section VI of the P.C. Text:

Residential housing units providing, at a minimum, an enclosed two-car side-by-side garage or two individual single-car enclosed garages for the sole use of the residential units, but having individual driveways less than 18-feet long, shall satisfy parking requirements as follows:

• Each residential housing unit shall provide two (2) covered parking spaces, and one (1) additional parking space within two hundred (200) feet of the housing unit. On-street parking, where permitted, may be used for the additional space. Such parking shall be limited to neighborhood streets, as defined by the Shea/Baker Ranch Area Plan.

Where parking is otherwise allowed on the street, on-street parking may be counted toward satisfaction of guest parking requirements on all neighborhood streets, as defined by the Shea/Baker Ranch Area Plan.

CC&Rs will require and Sellers will disclose that the home's occupant must maintain their garage in a manner that ensures that the number of cars for which the garage was designed may be accommodated, and that homeowners shall park within their garage and driveway spaces.



Scale: N.T.S.

Exhibit 4.5 - Alley

4.1.3 Offsite Improvements

Baffin Bay Drive is an existing road adjacent to the southwest side of the Shea/Baker Ranch project that provides access to established business park uses. This road was at one time planned to extend north beyond its existing termination point. An offer to grant an easement for roadway purposes to the City of Lake Forest was made on Tract Map 13343 over that area, and the City did not accept the offer. Based on the community plan for Shea/Baker Ranch, the developer intends to withdraw that offer. Instead, the project will construct a cul-de-sac at the existing terminus of Baffin Bay Road.

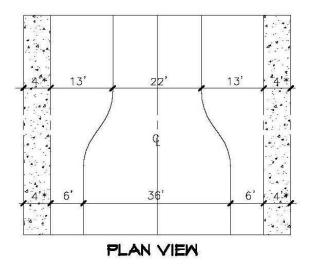
4.1.4 Special Intersection Treatments

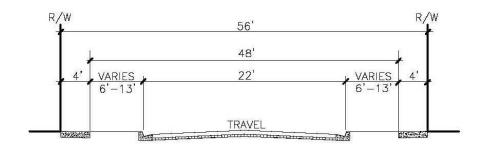
Traffic-calming street designs are allowed within Shea/Baker Ranch. These reduce speeds and enable an increased amount of landscaping adjacent to or within the roadway.

At the entries to neighborhoods and at internal intersections, a traffic-calming device called a taper may be included in the design, as illustrated on Exhibit 4.6. The tapers will extend into the street seven feet on each side, eliminating the on-street parking space. This creates two travel lanes, each eleven feet wide. Traffic-calming devices such as this one have proven to reduce speeds, considered an important priority within the neighborhoods.

One roundabout is located at the intersection of "A" and "B" streets with Dimension Drive. This roundabout location is shown on the Circulation Plan, Exhibit 4.1. The roundabout is proposed to help control traffic speeds within the community without requiring traffic control devices such as signals or stop signs. Circumnavigating a roundabout requires reduced vehicular speed. Traffic entering a roundabout yields to traffic already within the circle, eliminating the need for any other traffic control mechanism. The proposed roundabout is illustrated in Exhibit 4.7. Enhanced paving may be included at the pedestrian crossings at the roundabout.

As with landscaped parkways and medians in Shea/Baker Ranch, the center island of the roundabout will be maintained by a homeowners association.





PROFILE VIEW



Scale: N.T.S.

Exhibit 4.6 - Taper Design

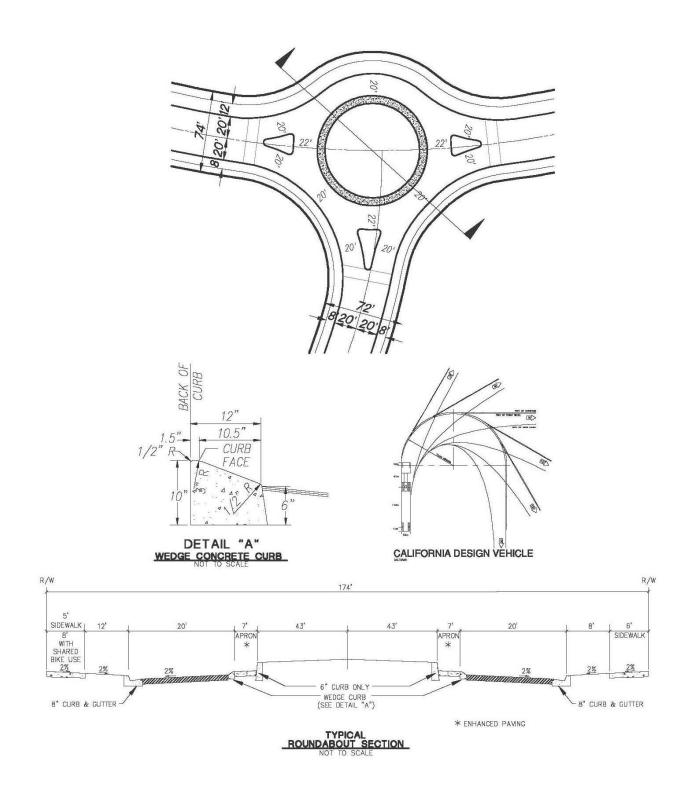


Exhibit 4.7 - Proposed Roundabout

4.2. ALTERNATIVE MODES OF TRANSPORTATION

To assist in reducing the number of vehicle miles traveled, and to promote converting some automobile trips into non-vehicular trips, a network of bicycle and pedestrian connections is provided in Shea/Baker Ranch. Additionally, public transit service is available in the community.

4.2.1 Bikeways

Over six miles of bikeways are provided within the community. Class II bikeways are located on both sides of Alton and Rancho parkways and Dimension Drive, consistent with Figure C-4 in the Circulation Element of the City's General Plan. Bike lanes are also located on both sides of "A" and "B" streets. These bikeways connect to existing and planned connections illustrated on the City's Planned Bikeways Map. The bicycle trail connects through Neighborhood Park K to the Borrego Linear Park. A Class I bicycle trail, shared with a maintenance road for the storm drain system, is located along the length of Borrego Linear Park that allows for cycling, consistent with the City's Recreation Plan, Figure RR-1 of the Recreation and Resources Element of the Lake Forest General Plan. This trail is connected to Alton Parkway at its southern end and to Towne Centre Drive just west of Alton Parkway at the northern end.

4.2.2 Pedestrian Connections

The City's Recreation Plan indicates that Alton and Bake Parkways are arterials providing pedestrian access. In addition to those pedestrian connections, all streets within Shea/Baker Ranch provide sidewalks separated from the vehicular travel ways by a parkway, except along portions of Bake Parkway, as noted above. The sidewalk on one side of "A" and "B" streets is widened to 8' for further enhance pedestrian movement. Two important off-street pedestrian trails are also provided, the Central Linear Park trail and the Borrego Linear Park trail, to facilitate movement throughout the community. These off-street trails provide almost two miles of pedestrian pathways. The design of these pedestrian connections is discussed more fully in Section 7 of the Area Plan, as a component of the Landscape Concept Plan.

4.2.3 Public Transit

Orange County Transit Authority (OCTA) provides public bus service to the City of Lake Forest. An established network of bus routes provides access to employment centers, shopping and recreational areas within the City. Currently, the Shea/Baker Ranch area is served by route 206, which travels along Bake Parkway from Dimension Drive to beyond the northeastern community boundary and into the Foothill Ranch community. OCTA continually modifies the bus routes in order to meet the needs of its riders. As Shea/Baker Ranch is developed, routes may be added or modified. The design of bus shelters, if any, shall be reviewed for compatibility with the community aesthetics and approved by the City and OCTA.

Metrolink and Amtrak provide commuter and passenger rail service to the area via a rail line that travels through the City of Lake Forest. The nearest rail station is located in the City of Irvine, at Barranca Parkway north of its intersection with Alton Parkway.

4.3 CIRCULATION DEVELOPMENT STANDARDS

- 1. The circulation system shall be constructed as shown herein and on the project's Tentative Tract Map(s).
- 2. The alternative roadway standards approved through Zone Change 5-10-1234 (called optional standards in that document) may be used within Shea/Baker Ranch.
- 3. Arterial and collector roadways will not provide any direct residential access. Residential neighborhoods will be served by neighborhood level, local roads.
- 4. Street lighting shall be installed per City of Lake Forest standard plans and requirements. If thematic street lighting is proposed in the future, design plans shall be submitted to the City for review and approval.
- 5. Bikeways shall be built to the County of Orange design and construction standards.
- 6. Trails shall be developed to meet all applicable ADA standards. If any trail segment does not meet those standards, an alternate path of travel shall be provided that does meet ADA standards to provide access to all parks within the community.